CAT® PRECISION SEALS

Seal Ring Material Options

Seal Ring Materials. Cat Seals offers the largest portfolio of seal ring material options in the industry. The materials have been engineered to excel in the many different applications in which metal face seals are integrated. For further information on any seal ring material listed below, please consult Cat Seals. The table below provides a general comparison of the seal ring materials available.

	C6	Stellite	NiHard	Formed
Material	Ni-Alloy	Fe-Alloy	Fe-Alloy	SAE 1074
Process	Cast	Cast	Cast	Stamped
Cost	High	Medium	Medium	Low
Wear Life	Medium/High	High	Medium/High	Low
Corrosion Resistance	High	Medium/High	Low/Medium	Medium
Scoring Resistance	High	Medium	Medium/High	Medium/High

Stellite

Stellite has been designed for the harshest operating environments where abrasive and corrosive elements are present. Stellite's formulation is iron based with a high alloy content designed to provide maximum wear and corrosion resistance. Stellite cast seals are typically found in applications frequently exposed to abrasive and corrosive conditions with moderate rotational speeds (up to 150 mpm/490 fpm maximum).

C6

C6 was developed for applications that require high speed and superior corrosion resistance. This alloy offers greater speed capabilities over stellite with high scoring and corrosion resistance. The C6 alloy is available only from Cat Seals.

NiHard

NiHard is another iron based casting alloy offered by Cat Seals. It is used in applications similar to those served by stellite. P/V characteristics are slightly greater than stellite, but in tests conducted by Cat Seals, wear life and corrosion resistance have shown to be less.

Formed (Duo-Cone™ Only)

Formed seals were developed for applications that do not require the high levels of corrosion and abrasion resistance, but the versatility of a face seal is desired. Formed seals are a low cost alternative to cast seals that provide similar load and speed capability as stellite but at a lower cost.

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